

**THE EFFECT OF BOARD DIVERSITY ON
INTELLECTUAL CAPITAL PERFORMANCE:
THE MODERATING ROLE OF BOARD
MEETINGS' EFFECTIVENESS**



UNDERGRADUATE THESIS

Submitted as Partial Requirement to Complete Undergraduate Degree
Faculty of Economics and Business
Diponegoro University

Submitted by:

IMAS KOMALA
12030113120116

FACULTY OF ECONOMICS AND BUSINESS
DIPONEGORO UNIVERSITY
SEMARANG

2017

THESIS APPROVAL

Author Name : Imas Komala

Student Number : 12030113120116

Faculty/ Department : Economics and business/ Accounting

Thesis Title : **THE EFFECT OF BOARD DIVERSITY ON**

INTELLECTUAL CAPITAL PERFORMANCE:

THE MODERATING ROLE OF BOARD MEETINGS'

EFFECTIVENESS

Thesis Supervisor : Fuad, SET., M.Si., Ph.D

Semarang, 3rd March 2017

Supervisor,



(Fuad, SET., M.Si., Ph.D)

NIP. 19790916 200812 1002

SUBMISSION

Author Name : Imas Komala

Student Number : 12030113120116

Faculty/ Department : Economics and Business/ Accounting

Thesis Title : **THE EFFECT OF BOARD DIVERSITY ON**

INTELLECTUAL CAPITAL PERFORMANCE:

THE MODERATING ROLE OF BOARD MEETINGS'

EFFECTIVENESS

Has been presented and defended in front of the Boards of Reviewers on March 10th, 2017 for fulfilling the requirement to be accepted.

The Reviewers Board:

1. Fuad, SET., M.Si., Ph.D.

(.....)

2. Agung Juliarto, SE., M.Si., Akt., Ph.D.

(.....)

3. Dr. Hj. Zulaikha., M.Si., Akt.

(.....)

DECLARATION OF ORIGINALITY

I am, Imas Komala, hereby declare that this thesis is real and accurate to be my own work, especially written for partial requirement to complete Undergraduate Program of Accounting, and has not been presented in any other occasion before.

I bear full responsibility for my undergraduate thesis.

Semarang, 3rd March 2017



Imas Komala

NIM. 12030113120116

MOTTO AND DEDICATION

Man Jadda Wajada

“Someone who are really serious and persistent about his/her dreams, will succeed.

Man Shabara Zhafira

“Whom be patient, will be get lucky”

“If I can not make my parents happy and proud of me, no matter how successful I am, I failed.”

I dedicate this thesis for:

My beloved mom, Rostati

My beloved dad, Emon

My beloved little sister and brother,

Gita Dea Rostika and Gani Ardiansyah Arahman

My family

And all my dear friends

ACKNOWLEDGEMENT

Alhamdulillahirabbil'alamin, all praise is due to Allah; Lord of the worlds. This thesis which entitled "The Effect of Board Diversity on Intellectual Capital Performance: The Moderating Role of The Effectiveness of Board Meetings" has been finally presented to fulfill one of requirements in accomplishing the Bachelor Degree on Faculty of Economics and Business of Diponegoro University. I do realize that in accomplishing this thesis, there are many people who give their help, support, and time for me. Therefore, I would like gladly thank to:

1. Dr. Suharnomo, SE., M.Si., as the Dean of Faculty of Economics and Business, Diponegoro University, and all of lecturers and staffs for the knowledge, encouragement and support.
2. Fuad, SET., M.Si., Ph.D., as the Head of the Accounting Department Faculty of Economics and Business, Diponegoro University as well as my supervisor who constantly support, guide, and giving valuable suggestions for this thesis.
3. My beloved mom who now in Malaysia, I know so well you had worked hard all this time for our family. You gave everything you have, you sincerely go abroad just to make sure that my study does not stop. This is for you. Thank you for all you have been did, your prayer and support gave me the strength to complete this thesis.
4. My beloved dad, who had worked hard all this time just to make sure that all of my needs are met. Thank you for the enormous support, prayer,

suggestions and life guidance which motivates me to go beyond the limit and gain catch all my dreams.

5. My beloved family, my siblings, grandma, grandpa, aunt, uncle, thank you for all of your prayer and support.
6. Aditya Wahyu Pradana and his family who always help me everytime I need, always support and prayer for me all this time. Thank you to the sincerity of your heart.
7. My dearest girls; Anantya Dyah W.W, Susi Jayanti, Anggit Tri Retnoningtyas, Amallia Dyah Sitasari, Fransisca Ayudya, Yohana Lalitya, Widya Atri Faranita, Ayu Primasari, Ajeng Primasari, Rosalia and Laili Maulidiyah, thank you for all your kindness, help, support, prayer, and all the wonderful college times. Hope that our friendship will lasts, girls!
8. My “Bukan Anak Jalanan” squad; Farah, Nadhilla, Ita, Agisa, Wulan, Ika, Arman, thank you for togetherness, we fight together to finish our own thesis, success for us!
9. All of my friends and classmates in Accounting batch 2013, thanks for the memories, togetherness, and being such a family.
10. Boards of PR division of EECC, all of the other boards and rangers of EECC, thank you so much for the joyfull times.
11. Indonesia Marketing Association (IMA UNDIP) for all the experience and togetherness, especially Event Division 2014; Kak Dhea, Malisa, Juwita, Mas Firman and Hanif.

12. Keluarga Mahasiswa Majalengka (HIMMAKA UNDIP); A Hami, Teh Arika, Teh Fani, Erna, Fauzyah, Dwiki, Arlan, Hafidz, Aditya, Ega, Adiyawan, Irfan, thank you for all your help, our togetherness and made me feel comfortable during a lecture.
13. My 35-days family (KKN SUMUR team); Mila, Hastin, Tri, Ika, Anggita, Sari, Heranantio, Mas Lukman, Nirwan, and Setyo, KORDES Kecamatan Cluwak, and all of my new family in Sumur, thank you for all of your kindness, help, togetherness, memories, and support.
14. My high-school squad; Erna and Nina, thank you for all the wishes and million support.
15. All people who have helped me in accomplishing my thesis and bachelor degree in Accounting, Economics and Business Faculty, Diponegoro University, which I could not mention them one by one.

Semarang, March 3rd, 2017

Imas Komala

NIM. 120301131120116

ABSTRACT

This study aims to investigate the effect of board diversity (gender, educational level, nationality, and the presence of independent board) partially to the intellectual capital performance with the moderating effect of the effectiveness of board meetings. This research adopted Pulic (1998) model to measure the intellectual capital performance. Board Diversity was measured by Blau's Index, while the effectiveness of board meetings was measured by the number of joint meetings that have been held by the board of directors and board of commissioners per year.

Population of this research were banks, insurance, telecommunication and computer companies which have met some criteria as knowledge-intensive companies. Samples were taken for the year 2012-2015. Samples was collected by purposive sampling method where researcher established some criteria to be the research data. Moderated Regression Analysis (MRA) on IBM SPSS 20. was used to test the research data.

This research indicated that companies with a high level of board diversity in terms of gender, educational level, nationality, and the presence of an independent board without effectiveness of board meetings have lower intellectual capital performance except nationality diversity. Furthermore, this research found that board diversity partially are gender, educational level, nationality, and the presence of independent board with more effective board meetings have higher intellectual capital performance except nationality diversity which have a negative effect on intellectual capital performance.

Keywords : board diversity, intellectual capital, VAIC, board meetings

ABSTRAK

Penelitian ini bertujuan untuk menguji pengaruh keberagaman dewan (jenis kelamin, tingkat pendidikan, nasionalitas, dan kehadiran dewan independen) secara parsial terhadap kinerja modal intelektual dengan pengaruh moderasi dari efektivitas rapat dewan. Penelitian ini menggunakan model Pulic (1998) untuk mengukur kinerja modal intelektual. Keberagaman dewan diukur dengan menggunakan *Blau's Index* sedangkan efektivitas rapat dewan diukur oleh jumlah rapat gabungan yang telah diadakan oleh dewan direksi dan dewan komisaris per tahun.

Populasi penelitian ini adalah bank, perusahaan asuransi, telekomunikasi dan komputer yang telah memenuhi beberapa kriteria *knowledge-intensive companies*. Sampel diambil untuk tahun 2012-2015. Sampel dipilih menggunakan metode *purposive sampling* di mana peneliti menetapkan beberapa kriteria untuk menjadi data penelitian. *Moderated regression Analysis* (MRA) pada IBM SPSS 20. digunakan untuk menguji data penelitian.

Penelitian ini mengindikasikan bahwa perusahaan dengan keberagaman dewan yang tinggi dalam hal jenis kelamin, tingkat pendidikan, nasionalitas, dan kehadiran dewan independen tanpa efektivitas rapat dewan akan memiliki kinerja modal intelektual yang lebih rendah kecuali keberagaman nasionalitas. Lebih lanjut, keberagaman dewan secara parsial yaitu jenis kelamin, tingkat pendidikan, nasionalitas, dan kehadiran dewan independen dengan rapat dewan yang lebih efektif akan memiliki kinerja modal intelektual yang lebih tinggi kecuali keberagaman nasionalitas yang memiliki pengaruh negatif pada kinerja modal intelektual.

Kata kunci: keberagaman dewan, modal intelektual, VAIC, rapat dewan

TABLE OF CONTENTS

TITLE PAGE	i
THESIS APPROVAL	ii
SUBMISSION	iii
CERTIFICATE OF ORIGINALITY	iv
MOTTO AND DEDICATION	v
ACKNOWLEDGEMENT	vi
ABSTRACT	ix
ABSTRAK	x
TABLE OF CONTENTS	xi
LIST OF TABLES	xv
LIST OF FIGURES	xvi
LIST OF APPENDICES	xvii
CHAPTER I INTRODUCTION	
1.1 Background	1
1.2 Problem Formulation	7
1.3 Research Objectives	9
1.4 Research Contributions	9
1.5 Systematics Writing	10
CHAPTER II LITERATURE REVIEW	
2.1 Underlying Theories	
2.1.1 Resource Dependency Theory	12

2.1.2 Board Diversity	14
2.1.2.1 Gender Diversity	15
2.1.2.2 Educational Level Diversity	16
2.1.2.3 Nationality Diversity	17
2.1.2.4 The Presence of Independent Board.....	18
2.1.3 Intellectual Capital Performance	19
2.1.4 The Effectiveness of Board Meetings.....	20
2.2 Previous Researches.....	21
2.3 Theoretical Framework.....	23
2.4 Hypotheses Development	25

CHAPTER III RESEARCH METODOLOGY

3.1 Operational Variables Definition and Measurement	
3.1.1 Dependent Variable	30
3.1.2 Independent Variable.....	31
3.1.3 Moderating Variable	32
3.2 Population and Sample	33
3.3 Types and Data Source	34
3.4 Data Collection Method.....	34
3.5 Analysis Method	
3.5.1 Descriptive Statistic	35
3.5.1 Assumption Classic Test	35
3.5.1.1 Normality Test.....	35
3.5.1.2 Autocorrelation Test.....	36

3.5.1.3 Multicollinearity Test	36
3.5.1.4 Heteroscedasticity Test.....	37
3.5.2 Moderated Regression Analysis	38
3.5.2.1 Coefficient Determination (R^2)	40
3.5.2.2 F-test	41
3.5.2.3 T-test (Hypotheses Test)	41

CHAPTER IV RESULTS AND DISCUSSION

4.1 The Description of Research Objects	42
4.2 Data Analysis	44
4.2.1 Descriptive Statistic Analysis	44
4.2.2 Assumption Classic Test.....	46
4.2.2.1 Normality Test.....	46
4.2.2.2 Autocorrelation Test.....	48
4.2.2.3 Multicollinearity Test	49
4.2.2.4 Heteroscedasticity Test.....	51
4.2.3 Moderated Regression Analysis	54
4.2.3.1 Coefficient Determination.....	55
4.2.3.2 F-test	56
4.2.3.3 Hypotheses Test Result (T-test)	57
4.2.4 Interpretation and Discussion	59

CHAPTER V CONCLUSIONS AND SUGGESTIONS

5.1 Conclusions.....	65
----------------------	----

5.2 Limitations	67
5.3 Suggestions	67
BIBLIOGRAPHY	69

LIST OF TABLES

Table 2.1 Summary of Previous Research	22
Table 3.1 Decision Making in Autocorrelation Test.....	36
Table 4.1 Research Object Description.....	43
Table 4.2 Descriptive Statistic Result	44
Table 4.3 Normality Test Result	47
Table 4.4 Autocorrelation Test Result	48
Table 4.5 Multicollinearity Test Result	49
Table 4.6 Heteroscedasticity Test Result	52
Table 4.7 The Result of Moderated Regression Analysis.....	55

LIST OF FIGURES

Figure 2.1 The Research Framework	25
Figure 3.1 Research Model	40

LIST OF APPENDICES

Appendix A. List of Research Samples	72
Appendix B. Moderated Regression Analysis Results	75

CHAPTER I

INTRODUCTION

1.1 Background

One of the general purpose of the company is to achieve the maximum performance of the company. The company's maximum performance can be achieved by good capital management. Capital is important in order to build, develop and maintain the establishment of a company (Ekowati, Rusmana, & Mafudi, 2012). The company's capital comprises of physical, financial and intellectual capital. Companies must manage these capitals properly so that the companies can continue to grow and survive. Especially in this era of globalization, companies not only need to focus on the physical and financial capital, but also on the intellectual capital that became the characteristics of a knowledge-based companies. Intellectual capital is now referred to as the causative factor of success is important and will increasingly become a concern in the study of organizational strategy and development strategies (Ekowati, Rusmana, & Mafudi, 2012).

Intellectual capital is already supposed to be getting more attention related to the three components that can provide value added to the company. According to Setiarso (2006) ability of a country in the field of technology has four components, namely the technical devices (technoware), the human devices (humanware), the information devices (infoware), and the organization devices (orgaware), but companies in Indonesia are still using conventional accounting which emphasizes the use of tangible assets. These companies are still not paying

more attention to human capital, structural capital, and customer capital as the components of the intellectual capital. The three components of the intellectual capital necessary to create value added for companies that can compete in the era of knowledge-based business (Sawarjuwono and Kadir, 2003, in Wahyuni & Rasmini, 2016).

According to Efandiana (2011) in Indonesia, the phenomenon of the intellectual capital began to develop, especially after the advent of SFAS No. 19 2009 (revised 2000) about intangible assets. In addition, the development of intellectual capital is also encouraged by the change of business conducted by the companies from labor-based business towards knowledge-based business. In order to survive, the companies changing their labor-based business (business based on labor) towards a knowledge-based business (business based on knowledge) rapidly (Ermila, 2010). The emergence of a “new economy” driven by the development of science and information technology also trigger the importance of the intellectual capital (Petty and Guthrie 2000; Bontis 2001 in Ulum MD, 2008). The intellectual capital becomes important for the growth and development of the companies even though its characteristics are intangible (Ahuja and Ahuja 2012; Kamath, 2007; Goh, 2005 in Al-Musali & Ismail, 2015).

In this era of globalization, the intellectual capital plays an important role in the value creation process of organizations by giving value added for the companies. According to Keenan & Aggestam (2001) in Muttakin, Khan, and Belal (2015) one of the success factors of the companies in 21th century is they can utilize their intellectual capital to be the maximum organizational advantage.

Keenan & Aggestam (2001) were the researchers who investigated the relationship between corporate governance and intellectual capital. They argued that the board of directors in the companies have responsibility to exploit not only physical and financial capital but also the intellectual capital to maximum advantage.

Corporate governance becoming an important factor of the intellectual capital performance due to corporate governance has responsibility to develop and utilize the intellectual capital as well as in people, structure, and processes of the companies. One of the most important mechanisms of corporate governance to improve the advantage of the intellectual capital and get a high performance is board structure. In Indonesia, the composition of the board of the companies adheres to a two tier system, which is composed of a board of directors as those who manage and those who conduct the control conducted by a board of commissioner (Ward, 2008). Board of directors becomes important due to their role to can develop and manage the intellectual capital effectively so that it will affect the performance of the companies indirectly (Williams, 2001 in Al-Musali & Ismail, 2015). Importance of board structure is also due to the role of the board as well as the board of directors and the board of commissioners in terms of making policies that will lead to maximum utilization of intellectual capital.

Board of directors and board of commissioners responsible for the company's decision making process, including with regard to the best way to obtain and utilize the necessary resources in the management of intellectual capital. The best decision would be obtained if a lot of innovation, perceptions and flexibility that

goes into the process of acquisition (Williams, 2001). Processes more innovative could be achieved if there is a high level of diversity in the structure of the board (Talke, Solomon, & Rost, 2010). In addition to more innovative, high level of board diversity also will produce more effective policies and more quality actions taken by the companies

However, despite its importance, the research on the influence of board diversity to the intellectual capital performance has not been conducted in Indonesia. A previous study that investigated the influence of board diversity to intellectual capital performance found that a high level diversity of the board of directors will improve the intellectual capital performance (Swartz & Firer, 2005). However, these research only focus on gender diversity and ethnic diversity and ignored other board diversity characteristics such as educational level diversity and nationality diversity.

In Indonesia, the research about the effect of board diversity on the intellectual capital performance has not been conducted. The effect of board diversity has been studied in Indonesia, but its effect on the Corporate Social Responsibility (CSR). Yuniasih (2011) examined the effect of board diversity on the intellectual capital disclosure which was divided board diversity to four characteristics that are gender diversity, nationality diversity, educational diversity and the presence of an independent board. She found that two of the four characteristics used that is gender diversity and nationality diversity are unknown have a positive effect on the intellectual capital disclosure while the educational diversity and the presence of an independent commissioner has no effect on the intellectual capital

disclosure. However, the results were the opposite stated that board diversity in terms educational diversity and nationality diversity have a negative effect on intellectual capital performance (Al-Musali & Ismail, 2015).

Banks, insurance, telecommunication, and computer companies are examples of knowledge intensive companies considered to their characteristic in high technology, non labor-based business and a good customer service. A high board diversity at them will lead to the policies making process that more relevant and innovative related to the utilization of resources required in intellectual capital management. Furthermore, according to Ahuja and Ahuja (2012) in Al-Musali & Ismail (2015) giving one example of banks with a higher intellectual capital performance will more success than the others. Characteristics of board diversity is not limited to gender and nationality but also education and independence. This research will examine the effect of board diversity in banks, insurance, telecommunication, and computer companies with expanded characteristic of board diversity in gender, education, nationality and independence on the performance of intellectual capital. As has been explained earlier that the composition of the board in Indonesia using a two tier system then board diversity in this research not merely referred to the diversity of the board of directors but the diversity of the whole board, board of directors and board of commissioners. However, Talke, Solomon, & Rost (2010) argue that board diversity does not affect firm performance as much, they further suggest that instead of investigating a simple direct relationship between board diversity and firm performance, variables that affect this relationship should be explored. Carpenter (2002) in Al-

Musali & Ismail (2015) suggests that inconsistencies in diversity-performance relationships shown in prior studies may point to the possibility that important moderating or intervening variables have been overlooked. Based on the resource dependency theory, one factor that linked to board diversity and intellectual capital performance is the effectiveness of board meetings (Al-Musali & Ismail, 2015).

Auh and Menguc (2005) in Al-Musali & Ismail (2015) stated that greater diversity has been shown to cause process deficiencies by plaguing effective operation of the 4Cs (i.e. communication, collaboration, coordination and cohesiveness). According to Carpenter (2002) in Al-Musali & Ismail (2015) a higher board diversity also can give a negative effect by increasing the potential conflict among member of boards and decreasing the effectiveness of their communication. Furthermore, according to Goodstein *et al.* (1994) in Al-Musali & Ismail (2015) board diversity may lead to potentially conflicting conceptions of strategic change and limit a board's ability to take timely strategic actions. Consequently, excessive diversity can actually affect intellectual capital performance negatively by impeding and hampering creative decision-making related to intellectual capital management. Therefore, the direct effect of board diversity on intellectual capital performance can be mixed and ambiguous because of the dual impact of the benefits and costs associated with board diversity. Based on resource dependency theory, this study posits that the effectiveness of board meetings could help in lessening the disadvantages related to board diversity. Thus, effect of board diversity in terms of gender, educational level, nationality,

and independence diversity on intellectual capital performance will be positive as the effectiveness of board meetings improves.

1.2 Problem Formulation

Along with economic development in this 21th century, many companies in emerging countries, including Indonesia are changing their labor-based business towards knowledge-based business. It means that with the emergence of knowledge-based economy, intellectual capital has become an important factor for the growth and development of the companies. Therefore, examined the factors that can improve the intellectual capital performance is attracting the attention.

Corporate governance is viewed as one of the important factors of the intellectual capital performance. Keenan & Aggestam (2001) corporate governance have responsibility to develop and utilize the intellectual capital in people, structure, and processes of the companies. Importance of board structure is also due to the role of the board as well as the board of directors and the board of commissioners in terms of making policies that will lead to maximum utilization of intellectual capital. The board of directors and the board of commissioners have responsibility to look for the best policies to obtain and utilize the necessary resources in the management of intellectual capital. According to Williams (2001) the best decision would be obtained if a lot of innovation, perceptions, and flexibility that goes into the process of acquisition. Process more innovative could be achieved if there are a high level of diversity in the structure of the board (Talke, Solomon, and Rost, 2010). It means that the best decisions can be made if there is a high level of diversity in the structure of the board.

In Indonesia, there has been no research regarding the effect of board diversity on the intellectual capital performance. The research related board diversity ever conducted, but its influence on corporate social responsibility and intellectual capital disclosure. Swartz & Firer (2005) have conducted research on the effect of board diversity to intellectual capital performance and found that a high board diversity will improve the performance of the intellectual capital of the companies. However, these studies only focus on gender and ethnic diversity and neglects the other characteristics of board diversity such as educational and nationality diversity and also the presence of an independent board. This research divides the characteristics of board diversity becomes gender, educational level, nationality, and independence diversity. The effectiveness of board meetings used in this research to moderate the negative effect of board diversity. Therefore, this research was conducted to answer the questions as follows:

1. Does gender diversity with more effectiveness of board meetings have higher the intellectual capital performance?
2. Does educational level diversity with more effectiveness of board meetings have higher the intellectual capital performance?
3. Does nationality diversity with more effectiveness of board meetings have higher the intellectual capital performance?
4. Does the presence of independent board with more effectiveness of board meetings have higher the intellectual capital performance?

1.3 Research Objectives

According to the emergence of knowledge-based economy, the research that investigates the factors which can improve the intellectual capital performance attracted the intention, especially its relation to corporate governance. However, the research regarding the influence of board diversity to the intellectual capital performance has not been conducted in Indonesia. Therefore, the objectives of this research are to test the influence of board diversity to the intellectual capital performance empirically in general and in particular as follows:

1. Analyze whether gender diversity with more effectiveness of board meetings will have higher the intellectual capital performance.
2. Analyze whether educational level diversity with more effectiveness of board meetings will have higher the intellectual capital performance.
3. Analyze whether nationality diversity with more effectiveness of board meetings will have higher the intellectual capital performance.
4. Analyze whether the presence of independent board with more effectiveness of board meetings will have higher the intellectual capital performance.

1.4 Research Contributions

This research is expected to deliver benefits for all parties, whether the benefits which available practically as well as theoretically, that is:

1. For academics, this research can contribute to finding out the results of an analysis of the factors can affect the intellectual capital performance, add a reference and be compared to the next research related to corporate

governance and its effect to the intellectual capital performance in general, and the effect of board diversity to the intellectual capital performance in particular.

2. For policy maker in the company, the findings of the research have implications on how to manage corporate governance better than can improve the performance of the companies through improve its intellectual capital performance.
3. For investor and potential investor, can be the consideration in making investment decisions on the companies listed in Indonesia Stock Exchange by also taking into their intellectual capital performance and the factors affecting the intellectual capital performance such as corporate governance in general and board diversity in particular.

1.5 Systematics Writing

CHAPTER I: INTRODUCTION

This chapter contains an explanation which attempts to give an overview of the contents of the research and description of the problem to be a topic in this research. This chapter consists of the background of the research, problem formulation of the research, research objectives, research contributions and the latter is writing systematic research.

CHAPTER II: LITERATURE REVIEW

The chapter will describe the theories and explanatory material relating to the research topic, as well as previous research that is still relevant to the research topic. In this chapter is also accompanied by a framework that underlies the hypotheses to be tested in this research and explaining the variables that contained

in this research included the independent variables, the dependent variable, and moderating variable.

CHAPTER III: RESEARCH METHODOLOGY

This chapter describes the variables in the research operationally, determination and selection of the sample population, types and sources of data, data collection methods, data analysis methods and tools that used in this research.

CHAPTER IV: RESULTS AND DISCUSSION

This chapter describe and explain the description of research objects, data analysis, interpretation of results and the argument or explanation for the results of existing research.

CHAPTER V: CONCLUSION

This chapter contains the conclusion made by the authors of the research are to answer all questions of research, the limitations of the study and suggestions for futher research.